

L 04665-67 EWT(m)/EWT(t)/ETI IJP(c) JD
ACC NR: AP6007109 SOURCE CODE: UR/0129/66/000/002/0039/0040

AUTHORS: Golovanenko, S. A.; Maslenkov, S. B.

ORG: TsNIIChERMET

TITLE: Investigation of diffusion in a bimetal with a varying concentration of silicon

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1966, 39-40

TOPIC TAGS: bimetal, metal diffusion, thermal diffusion, silicon, transformer steel

ABSTRACT: The diffusion of silicon in a trilayered steel ribbon from the inner layer to the two outside layers was studied. The study was initiated to determine the optimum annealing condition which insures a uniform distribution of silicon throughout the entire ribbon. The silicon distribution was determined by x-ray analysis. The microstructure of ribbon was also determined, and the experimental results are presented graphically (see Fig. 1). It was found that complete homogeneity of silicon distribution in the triple-member ribbon of 0.35-mm thickness is achieved over a short time interval at 1100C. The authors conclude that the cold rolling of many-layered ribbons, followed by annealing and thermal diffusion, yields homogeneous ribbons containing 4% or more of Si. It is recommended that this method of silicon steel ribbon production be adopted for the manufacture of transformer steel.

Cord 1/2

UDC: 539.12.172:621.9-419

L 04665-67
ACC NR: AP6007109

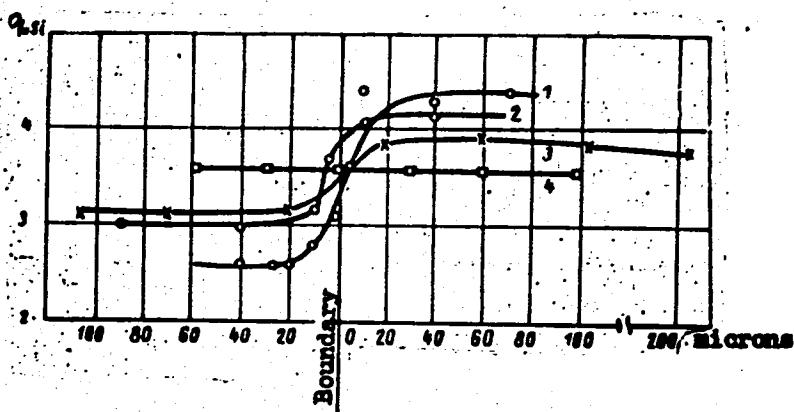


Fig. 1. Distribution of silicon in the cross section of the trilayer ribbon of transformer steel. 1 - hot rolled state, thickness 2.5 mm; 2 - the same as 1 after annealing at 800°C for 2 hr; 3 - cold rolling from 2.5 mm to 0.85 mm and annealing at 800°C for 2 hr; 4 - second cold rolling from 0.85 mm to 0.35 mm and annealing at 1100°C for 5 hr.

Orig. art. has: 2 graphs.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 001

Card 2/2 Kt

L 09074-67 T EWT(m)/EWP(t)/ETI IJP(c) JD/JG/WB/CD
ACC NR: A/6034466

SOURCE CODE: UR/0000/66/000/000/0280/0285

AUTHOR: Lazareva, I. Yu.; Prokoshkin, D. A.; Vasil'yeva, Ye. V.; Maslenkov, S. B.

ORG: none

TITLE: Investigation of the oxidation resistance of tungsten-niobium-titanium alloys

SOURCE: AN SSSR. Institut metallurgii. Svoystva i primeneniye zharoprovchnykh splavov (Properties and application of heat resistant alloys). Moscow, Izd-vo Nauka, 1966, 280-285

TOPIC TAGS: tungsten ~~minimum~~ alloy, tungsten titanium alloy, tungsten niobium alloy, titanium alloy, ~~very~~ oxidation resistant, alloy oxidation metal

ABSTRACT: The oxidation resistance of binary tungsten alloys with up to 50% niobium or titanium, and ternary tungsten-niobium-titanium alloys has been investigated. Niobium was found to be the most effective in increasing the oxidation resistance, especially at contents of up to 30%. Titanium at contents of up to 5% improves the oxidation resistance of binary alloys. At higher contents the titanium effect is negative, especially at temperatures above 1200°C. Also in ternary alloys, the titanium effect is negative. Oxidation proceeds by a two-way diffusion of oxygen and metal with a preferred migration of niobium ions in the tungsten-niobium system and of titanium ions in the tungsten-titanium-niobium systems. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 11/ SUBM DATE: 10Jun66/ ORIG REF: 004/ OTH REF: 001/ ATD PRESS: 5104

Card 1/1

14016-68 ENG(j)/EWT(m)/EPF(c)/EPF(n)-2/ETA(d)/EPR/EWP(t)/EWP(b) Pr-4/Ps-4/
ACCESSION NR: AP4042049 Pu-4 JD/JG/WB 8/0126/64/017/006/0898/0902

ATT. DR: Durova, N. N.; Maslenkov, S. B.; Estulin, G. V.

TOPIC: The investigation of the nature of an oxidation sublayer of niobium and
columbium alloys

SOURCE: Relyash metallovi i metallocnedeniya v 17 no 6 1961 202 mm

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032720019-6

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14040-35
ACCESSION NR: AP4042049

2

... recombination of electrons was found to occur simultaneously from the metal and

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Card 2/3

L 14-46-15
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CIA-RDP86-00513R001032720019-6"

ACCESSION NR: AP4042049

ENCLOSURE: 01

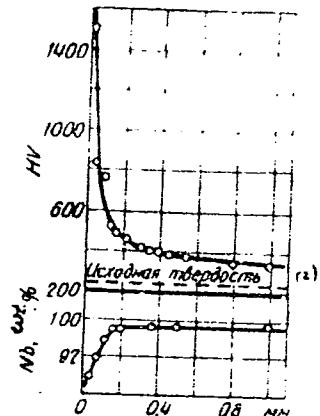
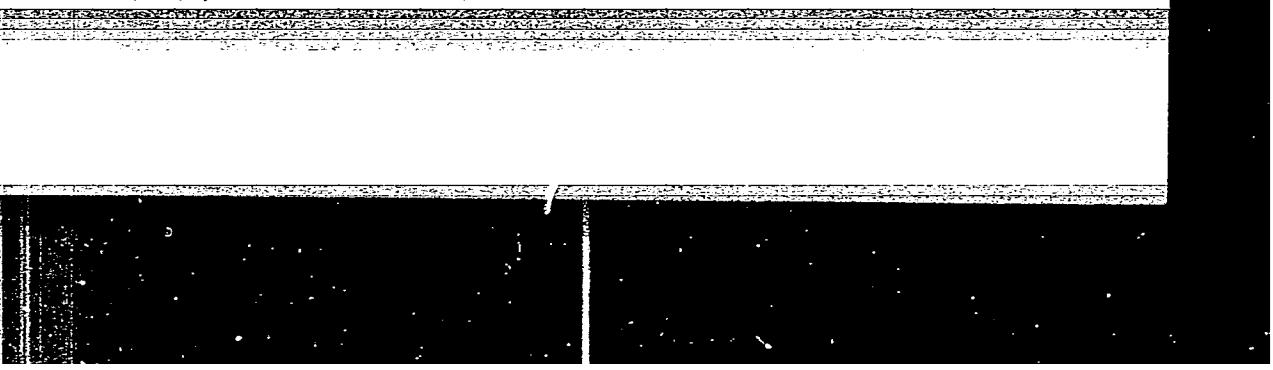


Fig. 1. Changes in the microhardness and the Nb contents (weight, %) in the

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Card 3/3



APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032720019-6"

MASLENKOVA, G. G.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Institute of High-Molecular Compounds in 1962:

"Investigation of the Nature of the Binding Capacity of Polymers in the Artificial Structure-Formation of Soils."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

MASLENKOVA, G.L.

USSR / Physical Chemistry. Molecules. Chemical Bond.

B-4

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 25809

Author : V.I. Val'kov, G.L. Maslenkova.

Title : Interaction of Intermolecular and Intramolecular Oscillations in Ice Crystal Spectrum.

Orig Pub : Optika i spektroskopiya, 1956, 1, No 7, 881-884.

Abstract : Lines of frequencies 230 (4), 291 (trace), 310 (0.5), 3088 (10), 3210 (1), 3321 (2) and 3400 (1.5 cm^{-1}) were detected in the combination scattering spectrum of ice photographed at the temperature of liquid nitrogen. The lines 3088 and 3210 cm^{-1} were referred to the symmetric and asymmetric vibrations of the water molecule. The low frequencies were referred to the intermolecular vibrations of molecules connected by the hydrogen bond. The frequencies 3321 and 3400 were explained as combinations of frequencies of intramolecular and intermolecu-

Card : 1/2

- 35 -

Leningrad State U.

USSR / Physical Chemistry. Molecules. Chemical Bond.

B-4

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 25809

Abstract : larvibrations, viz.: $3321 = 3088 + 230 \text{ cm}^{-1}$, and $3400 = 3088 + 310 \text{ cm}^{-1}$. The relative intensities of all the lines agree with the computations of M.D. Sokolov (Zh. eksperim. i teor. fiziki, 1952, 23, 404) of the probabilities of transitions between corresponding vibrations levels.

Card : 2/2

- 36 -

MASLENKOVA, G.L.

VAL'KOV, V.I.; MASLENKOVA, G.L.

Raman spectra of H₂O and D₂O at different temperatures (with
summary in English). Vest. IOU 12 no.22-8-13 '57. (MIRA 11:2)
(Raman effect) (Ice)

MASLENKOVA, G.

AUTHORS: Val'kov, V. I., Maslenkova, G. 54-4-2/20

TITLE: Raman Spectra of H₂O and D₂O at Different Temperatures
(Spektry kombinatsionnogo rasseyaniya H₂O i D₂O pri razlichnykh temperaturakh).

PERIODICAL: Vestnik Leningradskogo Universiteta Seriya Fiziki i Khimii,
1957, Vol. 22, Nr 4, pp. 8-13 (USSR)

ABSTRACT: The bands of O-H and O-D oscillations in the spectrum of "light" ice (H₂O) and "heavy" ice (D₂O) were investigated at different temperatures. Virtually two intense lines were observed, i.e. $w_1 = 230 \text{ cm}^{-1}$ and $w_2 = 310 \text{ cm}^{-1}$ for H₂O at -170°C, which have frequencies of $w_1 = 212 \text{ cm}^{-1}$ and $w_2 = 299 \text{ cm}^{-1}$ at 0°C; for D₂O, $w_1 = 220 \text{ cm}^{-1}$ and $w_2 = 295 \text{ cm}^{-1}$ at -170°C, $w_1 = 203 \text{ cm}^{-1}$ and $w_2 = 275 \text{ cm}^{-1}$ at 0°C respectively. These values and those obtained for the other temperatures in the Raman spectrum might be explained as interactions of intermolecular and intramolecular oscillations.

Card 1/2

Raman Spectra of H₂O and D₂O at Different Temperatures 54-4-2/20

There are 2 tables, and 10 references, 10 of which are Slavic.

SUBMITTED: July 12, 1957

AVAILABLE: Library of Congress

Card 2/2

MASLENKOVA, G.L.

Mechanism of artificial structure formation. Pochvovedenie no.11:
31-36 N '61. (MIRA 14:12)
(Soil conditioners) (Soil physics)

MASLENKOVA, G.L.

Infrared spectroscopy study of the structurizing properties
of polymers. Koll.zhur. 23 no.5:615-620 S-0 '61. (MIRA 14:9)

1. Agrofizicheskiy nauchno-issledovatel'skiy institut,
Leningrad.
(Polymers) (Soil particles)

MASLENKOVA, G.L.

Structure forming capacity of polymers in dependence on the
pH of the medium. Plast.massy no.2:45-46 '62. (MIRA 15:2)
(Polymers) (Hydrogen-ion concentration) (Soil chemistry)

MASLENKOVA, G.I.; REVUT, I.B.; RUSAKOVA, G.N.

Effect of the composition of exchangeable cations on the
processes of artificial structure formation in soil minerals.
Pochvovedenie no.6:73-79 Je '65. (MIRA 18:11)

1. Agrofizicheskiy nauchno-issledovatel'skiy institut.
Submitted Jan. 28, 1964.

MASLENKOVA, N. G.: Master Tech Sci (diss) -- "Investigation of the process of treating light-sensitive materials by applying treating solutions to them".
Moscow, 1958. 15 pp (Min Culture USSR, All-Union Sci Res Cinephotographic Inst NIKFI), 200 copies (KL, No 6, 1959, 134)

MARKHILEVICH, K. I.; SHEBERSTOV, V. I.; KIRILLOV, N. I., prof., doktor tekhn.nauk; MASLENKOVA, N.G.; KOLOSOV, K.A.; MIKHAYLOV, V.Ya.; MATIYASEVICH, L.M.; FRIDMAN, I.M.; SPASOKUKOTSKIY, N.S.; KHAZAN, S.M.; DEYCHMESTER, M.V.; BLYUMBERG, I.B., dotsent, retsenzor; LYALIKOV, K.S., prof., doktor khim.nauk, retsenzor; TELESHEV, A.N., red.; MALEK, Z.N., tekhn.red.

[Present-day developments in photographic processes; processing of light sensitive materials and new processes for obtaining the photographic image] Sovremennoe razvitiye fotograficheskikh protsessov; obrabotka svetochuvstvitel'nykh materialov i novye protsessy polucheniya fotograficheskogo izobrazheniya. Pod red. N.I.Kirillova. Moskva, Gos.izd-vo "Iskusstvo," 1960. 341 p.
(MIRA 14:4)

1. Leningradskiy institut kinoinzhenerov (for Blyumberg).
(Photographic chemistry)

MASLENKOVA, N.V. (Kiev)

Concerning the rational organization of infirmary care for the rural population. Vrach.delo no.10:1073-1077 0 '99. (MIRA 13:2)

1. Ukrainskoye nauchno-issledovatel'skoye byuro sanitarnoy statistiki.
(UKRAINE--HOSPITALS, RURAL)

MASLENKOVA, N.V.

Determination of the adequacy of hospital facilities for rural and
urban populations. Sov. zdrav. 18 no.2:30-33 '59. (MIREA 12:1)
(HOSPITALS)
adequacy of bed capacity (Rus))

MASLENKOVA, N.V.

Incidence of dental caries in some districts of the Ukrainian.
Stomatologija 38 no.3:26-28 My-Je '59. (MIREA 12:8)

1. Iz Ukrainskogo nauchno-issledovatel'skogo byuro sanitarnoy
statistiki. (UKRAINE--TEETH--DISEASES)

MASLENKOVA, N.V. (Kiev)

Occurrence of caries and pyorrhea alveolaris in certain regions of
the Ukrainian S.S.R. Probl. stom. 5:367-371 '60. (MIRA 15:2)
(UKRAINE TEETH DISEASES) (UKRAINE GUMS DISEASES)

MASLENKOVA, N.V.

Need for dental prostheses. Vrach. delo no.4:121-123 Ap '61.
(MIRA 14:6)
1. Otdel organizatsii zdravookhraneniya Ukrainskogo instituta
kommunal'noy gigiyeny i kafedra terapevticheskoy stomatologii
Kiyevskogo meditsinskogo instituta.
(UKRAINE-DENTAL PROSTHESIS)

MASLENKOVA, N.V. (Kiev)

Hospitalization in diseases of the oral cavity and the teeth.
Probl.stom. 6:364-368 '62. (MIRA 16:3)
(MOUTH—DISEASES) (TEETH—DISEASES)
(HOSPITAL CARE)

MASLENKOVA, N.V. (Kiyev)

Visits for stomatological aid by people affected with caries and
paradontosis; according to data from one of the medical sections
in the Shevchenkov District of Kiev. Sov.zdrav. 21 no.10:44-47
'62. (MIRA 15:10)

1. Iz otdela organizatsii zdravookhraneniya Ukrainskogo instituta
komunal'noy gigiyeny i kafedry terapevticheskoy stomatologii
Kiyevskogo meditsinskogo instituta.
(KIEV—STOMATOLOGY)

USSR/Cultivated Plants. Fodders.

M-4

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29852

Author : Maslenkova, V.Ya.

Inst :

Title : Bird's Foot Trefoil on the Meadow Bog Soil of Uzbekistan.

Orig Pub : Sots. s. kh. Uzbekistana, 1957, No 3, 66-68

Abstract : A try-out of bird's foot trefoil at the Uzbek Rice Station has shown the suitability of this crop for the meadow bog soils with a deep ground water layer of 5-10 cm. The average (for 3 years) hay yield of trefoil was 123.5 centners per ha. Red clover under these conditions became extremely thinned out and yielded to the trefoil in hay output by 35-40 centners per ha.

Card 1/1

- 40 -

SHASHKIN, P.I., inzh.; BRAY, I.V., inzh.; KISELEV, A.A., inzh.; MASLENKOVSKIY,
L.G., inzh.

Unit for regenerating the wash liquid. Vest.mash. 41 no.7:75-76
Jl. '61. (MIRA 14:6)
(Cleaning compounds)

BRAY. I.V., inzh.; MASLENKOVSKIE, L.G., inzh.

Reclamation of transformer oils by means of adsorbents activated
with gaseous ammonia. Energetik 9 no.6:21-24 Je '61.
(MIRA 16:7)

(Insulating oils) (Oil reclamation)

BRAY, I. V., inzh.; MASLENKOVSKIY, L. G., inzh.; SADOV, D. A., inzh.;
ROZENFEL'D, V. F., inzh.

Use of silica gel with activated gaseous ammonia for regenerating
the insulating oil of operating transformers. Energetik 10 no.8:
23-26 Ag '62. (MIRA 15:10)

(Insulating oils) (Electric transformers)

DZHAPARIDZE, Ye., MASLENNIKOV, A.

Promote the role of primary organizations. NTO 2 no.5:53-54
My '60. (MIRA 14:5)

(Iron industry—Technological innovations)
(Steel industry—Technological innovations)

14(3)

SOV/176-58-7-8/17

AUTHORS: Belokon', A., Colonel in the Reserve, Candidate of Military Science and Maslennikov, A., Lieutenant Colonel

TITLE: On the Building of Equipment Positions by Engineer Work During a Battle (Ob inzhenernom oborudovanii pozitsiy v khode boy'a) Comments on the Article by P. Kuz'min (Otkliki na stat'yu P. Kuz'mina).

PERIODICAL: Voyenno-inzhenernyy zhurnal, 1958, Nr 7, pp 21-23 (USSR)

ABSTRACT: Both authors have in view the improvement of trenches for defence in atomic warfare. The first author, criticizes an article by Engineer Colonel P. Kuz'min, published in this Journal in Nr 8 of 1957, and suggests alterations in the profile of the trenches and recommends testing them on the firing ranges. He states that a Company Commander, Captain N.F. Rogov, has tested Kuz'min's recommendations. The author recommends a small entrenching shovel. The second author suggests

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SOV/176-58-7-8/17

On the Building of Equipment Positions by Engineer Work During a Battle. Comments on the Article by P. Kuz'min.

the construction of a parapet in the rear as well as in the front of the trench. He also suggests a greater use of explosives in the construction of trenches. The Editor of this Journal states in the concluding remarks that the recommendations of Kuz'min and of his critics will be considered by the respective institution and, if necessary, will be put into practice. There is 1 Soviet reference.

Card 2/2

MASLENNIKOV, A. A.

Dissertation defended for the degree of Candidate of Economic Sciences at the
Institute of World Economics and International Relations

"Agrarian Reforms in India and Their Social-Economic Consequences."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

MASLENNIKOV, A. G.

CHUYSKIN, S.V.; MASLENNIKOV, A.G. inzhener-metodist

What can be achieved through larger packages. Tekst. prep. 15
no. 5:4-6 My '55. (MIFI 8:6)

1. Inzhener po izobretatel'stvu rodgorney fabriki.
(Spinning)

KUPIN, B.S.; PETROV, A.A.; YAKOVLEVA, T.V.; MASLENNIKOV, A.G.

Direction of the hydration of asymmetric disubstituted acetylenes.
Trudy LTI no.60:63-69 '60. (MIRA 14:6)

1. Kafedra organicheskoy khimii Leningradskogo tekhnologicheskogo
instituta imeni Lensoveta.
(Acetylene) (Hydration)

MASLENKOV, A. I.

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304 / 2012

Abdomyxus (nec. *Scutellaria*). *Abdomyxus* stroblii (Pantzer) nom. nudificatione pro *Abdomyxus* stroblii Pantzer. *Abdomyxus* stroblii Pantzer, Ann. Ent. Soc. Amer., Vol. 11, p. 102, 1918. Type locality: Alpine deserts, eastern Oregon, U.S.A. Described from one specimen of the Alpine desert near the Blue River, Oregon, U.S.A. (specimen No. 1095, U.S.N.M.). *Scutellaria* stroblii (Pantzer), *Scutellaria* stroblii (Pantzer), *Scutellaria* stroblii (Pantzer), *Scutellaria* stroblii (Pantzer). *Scutellaria* stroblii (Pantzer) *Scutellaria* stroblii (Pantzer).

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APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032720019-6"

Form No. Report (Date.) SW/2172
1. Geographical characteristics of the development of the mineral resources in the distribution of auto-limestone regions and their relationship to economic factors.
2. Geographical characteristics of the Altay-Sayan Ridge.
3. Geographical characteristics of mountainous plateau or limestone regions.
4. Geographical characteristics of limestone regions and its effect on mining operations (A.G. Lepikhin)
Ch. 2. Geological-Geographic Characteristics of Mountainous and Sedimentary Regions
1. Geological-Geographic Characteristics of the Altay-Sayan Ridge
2. The distribution (P. M. Tikhonov)
3. The distribution of sedimentary area over the country
4. Description of sedimentary facies and lithologies
5. Description of limestone manifestations of various genetic types
6. Description of limestone manifestations and types of limestone
7. Distribution of limestone deposition of different genetic types
8. Distribution of limestone in the Altay-Sayan Ridge
9. Geological and potential distribution of sedimentary rocks
10. Distribution of limestone in the Altay-Sayan Ridge
11. Geological-Geographic Characteristics of the Mountainous Plateau (A.G. Lepikhin, G.I. Lepikhina, V.T. Kostyuk, A.I. Kostyuk, A.S. Shishkin)
Bibliography
FATIGUE: Library of Congress

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APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032720019-6"

MASLENNIKOV, A. M., Candidate Tech Sci (diss) -- "Investigation of the stability of reticular towers". Leningrad, 1959. 16 pp (Min Higher Educ USSR, Leningrad Order of Labor Red Banner Construction Engineering Inst), 160 copies (KL, No 25, 1959, 135)

MASLENNIKOV, Arkadiy Mikhaylevich; ANOPOL'SKIY, M.G., red.;
SIDEL'NIKOVA, L.A., red.izd-va; PROKOF'YEVA, L.N.,
tekhn.red.

[Repairing and assembling two-red light-duty saw frames]
Rezent i mentash dvukhshatunnykh lesopil'nykh ram legkogo
tipa. Moskva, Goslesbunisdat, 1959. 118 p. (MIRA 12:6)
(Saws)

MASLERNIKOV, A.M.

Investigating the stability of hyperboloid rod towers. Nauch.
dokl.vys.shkoly; stroi. no.2:17-24 '59. (MIRA 13:4)

1. Rekomendovana kafedroy stroitel'noy mekhaniki Leningrad-
skogo inzhenerno-stroitel'nogo instituta.
(Elastic rods and wires)

MASLENNIKOV, A. P. : ANDRYANOV, I. O.

Sugar - Manufacture and Refining

Control of sugar losses in barometric water. Sakh. prom. 26 No. 5 1952.

Monthly List of Russian Acquisitions, Library of Congress, October 1952. UNCLASSIFIED.

MASLENNIKOV, A. P.; BLANKMAN, D.; KUZ'MINOV, V. P.

Sugar Industry

Collection of suggestions from inventors and efficiency men in the sugar industry,
Reviewed by A. P. Maslennikov, D. Blankman, V. P. Kuz'minov, Sakh. prom. 27, No. 2,
1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

MASLENNIKOV, A.P.

~~MASLENNIKOV, A.P.~~

~~From our experience. Sakh. prom. 32 no.1:61-62 Ja '58. (MIRA 11:2)~~

1. Smelyanskiy sakharnyy zavod.
(Sugar industry--Equipment and supplies)

ACC NR: AP7002598

(A, N)

SOURCE CODE: UR/0413/66/000/023/0104/0104

INVENTORS: Panfilov, A. F.; Maslennikov, A. P.; Gus'kov, B. N.

ORG: none

TITLE: A gas pressure regulator. Class 42, No. 189241

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 104

TOPIC TAGS: gas pressure, pressure gage, automatic pressure control, pressure regulator

ABSTRACT: This Author Certificate presents a gas pressure regulator with a throttling unit operated by a spring-loaded membrane. The opening above the membrane of this unit is connected with the outflow opening of the regulator by a duct. The opening below the membrane is connected to the opening above the membrane through an auxiliary pressure regulator (see Fig. 1). To decrease the size of the regulator, the sensitive element of the auxiliary regulator is made in the shape of a Bourdon tube.

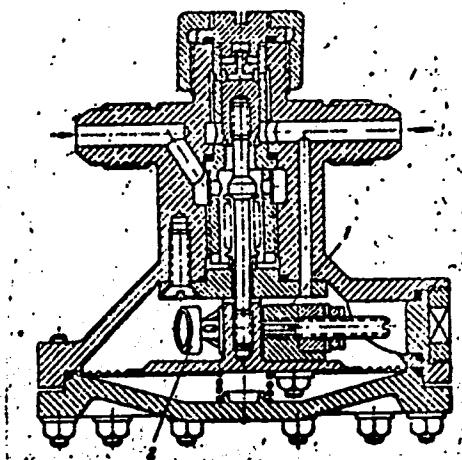
Card 1/2

UDC: 66.073.4:621.646.42

0930 2709

ACC NR: AP7002598

Fig. 1. 1 - auxiliary regulator;
2 - sensitive element



Orig. art. has: 1 figure.

SUB CODE: 13, 21 / SUBM DATE: 02Aug65

Card 2/2

MASLENNIKOV A. S.

Maslenikov, A. S.

"Methode electrochimique de determination quantitative de l'ethanol a concentrations exigues." by N. J. Poutochine and A. S. Maslenikov. (p 1047)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1941, Vol 11, No. 12

MASLENNIKOV, A.S.

Colorimetric determination of alpha-naphthylthiourea in krysida and
of krysida in rodenticide. Gig. sanit., Moskva no.5:52-53 May 1953.
(GML 25:1)

I. Of the Laboratory of Gor'kiy Oblast Division of Prophylactic Disinfection.

MASLENNIKOV, A.S.

Colorimetric determination of zinc phosphide in technical product
and in primers. Gig. sanit., Moskva no.10:47-49 Oct 1953. (CIML 25:5)

1. Of the Laboratory of Gor'kiy Oblast Division of Prophylactic Disinfection.

NIKOLAYEV, A. V., SOROKINA, A. A., MASLENNIKOV, A. S.

"Research on the Chemistry and Separation of Rare Earth Elements"

Rare Earth Elements (Extraction, Analysis, Use), Published by the Institute of
Geochemistry and Analytical Chemistry Imeni V. I. Vernadskiy, 1958, Moscow.

(Moscow Institute of Nonferrous Metals and Gold Im. M. I. Kalinin), p. 68-75.

AUTHOR:

Maslennikov, A. S.

SOV/75-13-5-18/24

TITLE:

Determination of Coexisting Cyclohexanone and Cyclohexanol
(Opradeleniye tsiklogeksanova i tsiklogeksanola pri sovmestnom
prisutstvii)

PERIODICAL:

Zhurnal analiticheskoy khimii, 1958, Vol 13, Nr 5, pp 599-602
(USSR)

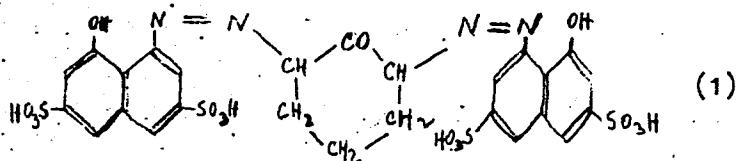
ABSTRACT:

Methods of determination for cyclohexanone and cyclohexanol basing on the reactions of their functional groups (Refs 1, 2) are difficult and time-consuming. Other methods on the basis of condensation- and polymerization reactions (Refs 3-5) are apt for the determination either of one of the two compounds alone or in the presence of but insignificant amounts of the other. The author of the present paper elaborated suitable methods of determination for cyclohexanone and cyclohexanol when occurring together. The cyclohexanone is determined on the strength of its reaction with the diazonium salt of the H - acid. The author found for the first time that cyclohexanone reacts with diazotized H - acid under formation of a cherry-red bis-azo dye (1).

Card 1/4

SOV/75-13-5-18/24

Determination of Coexisting Cyclohexanone and Cyclohexanol



Card 2/4

The coloration of the solutions resulting from this reaction is in accordance with Beer's law and can therefore be used for the photometric determination. The absorption maximum lies at 550 m μ , the molar extinction coefficient is 15 700. The diazonium salt of the H - acid tends to self-coupling, forming blue-colored products. This phenomenon can be avoided by addition of sodium sulfite or -bisulfite. In the determination of cyclohexanone by this method in the presence of cyclohexanol a part of the latter is oxidized to cyclohexanone. This interference can be prevented by adding acetic anhydride and urotropine to the solution. Metabisulfite, acetic anhydride and urotropine do not affect the reaction between the diazonium salt of the H - acid and cyclohexanone. The sensitivity of the

SOV/75-13-5-18/24

Determination of Coexisting Cyclohexanone and Cyclohexanol

described coupling reaction is $0,2 \mu\text{/ml}$, the error of the determination does not exceed 9% in concentrations of $1\mu\text{-}40\mu$ cyclohexanone. The determination is applicable in the presence of the hundredfold quantity of cyclohexanol. The determination of cyclohexanol is performed photometrically on the basis of the reaction with diphenylamine. By heating these two compounds in sulfuric acid solution up to more than 100° a red coloration is seen which does not obey to Beer's law. The maximum of absorption lies at $530 \text{ m}\mu$. The sensitivity of the reaction is $5 \mu\text{/ml}$. Cyclohexanone does not give any coloration with diphenylamine in amounts up to $0,5 \text{ mg/ml}$ under the same conditions. Higher concentrations of cyclohexanone effect a slight coloration, by addition of hydroxylamine sulfate this interference is eliminated. Hydroxylamine sulfate does not affect the reaction of cyclohexanone with diphenylamine. The method of determination for cyclohexanol is applicable in the presence of the 30 fold quantity of cyclohexanone. The error does not exceed 12% in amounts of $10\mu\text{-}100\mu$ of cyclohexanol. The determination of these cyclohexane derivatives is precisely described in the paper, also the results of several determinations by this

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SOV/75-13-5-18/24

Determination of Coexisting Cyclohexanone and Cyclohexanol

methods are given.

There are 2 figures, 2 tables, and 5 references, 1 of which is Soviet.

ASSOCIATION: Gor'kovskaya oblastnaya sanitarno-epidemicheskaya stantsiya
(Gor'kiy Regional Sanitary-Epidemiological Station)

SUBMITTED: August 6, 1956

Card 4/4

MASLENNIKOV, A.S.

Determination of phenol, cyclohexanone and cyclohexanol when present simultaneously. Gig. & san. 23 no.3:80-83 Mr '58. (MIRA 11:4)

1. Iz laboratorii Gor'kovskogo oblastnogo otdeleniya profilakticheskoy desinfektsii pri sanitarno-epidemiologicheskoy stantsii.

(PHENOLS, determ.

in air in presence of cyclohexanone & cyclohexanol)

(CYCLOHEXANES, determ.

cyclohexanone & cyclohexanol in air in presence of phenols)

MASLENNIKOV, A.S., Khimik

Colorimetric determination of sodium fluosilicate. Gig. i san.
23 no.7:91 Jl '58. (MIRA 12:1)

1. Iz Gor'kovskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(SILICONES, determ.

sodium silicofluoride, colorimetric determ. in
raticides (Rus))

(FLUORIDES, determ.

same)

(POISONS,

determ. of sodium silicofluoride in pesticides (Rus))

MASLENNIKOV, A.S.

Determination of cyclohexanone in the presence of other ketones.
Zhur. prikl. khim. 31 no.8:1277-1280 Ag '58. (MIHA 11:10)

l.Laboratoriya otdeleniya profilakticheskoy dezinfektsii pri
Gor'kovskoy oblastnoy sanitarno-epidemicheskoy stantsii.
(Cyclohexanone)

MASLENNIKOUA, A.S.

5(2) PHASE : B-W EXPLOITATION
27/ 442
Akademiya nauch SSSR. Institut gochchiali i analiticheskiy khimii.
Radioelementy polucheniyu, analizu, priemaniyu (New Earth Elements).
Prod. i Ed. Izd. Akad. Nauk SSSR, Izd-vo Nauka, Izd-va AN SSSR, 1959. 351 p.
5,000 copies printed.

Sup. N.I. Dukhatin; Profezari, Z.M., o/t Publishing House: D. N. Trifanov
and T.G. Laval; Zash. N.I. G. Nekorodov; Editorial Board: I. P. Alimov,
Corresponding Member, USSR Academy of Sciences; V. V. Stepanov, Doctor of
Chemical Sciences; N. V. Vol'yanov, Candidate of Chemical Sciences; V. I.
Danilevsky, Doctor of Chemical Sciences; N. M. Savchenko, Candidate of Chemical
Sciences; and Yu. S. Saltykov, Candidate of Chemical Sciences.

Purpose: This work is intended for chemists in general and for geochemists and
analytical chemists in particular.

Content: This collection of articles consists of reports presented at the New
Earth Elements Symposium held in June 1956 at the Institute of Geochemistry
and Analytical Chemistry (Ural, U. I. Vavilovsky). The book may be divided into
several sections: the separation of new earth elements from natural materials;
the methods of separating REE; and the application of the separation of
elements (REE) to the analysis of the glass and mineralogical
composition of various elements and their use as catalysts. Consequently, it is devoted to the
separation of lanthanides, chalcocyanides, the production of pure metal
of all new earth elements. The methods of this method of other articles
are represented here on the theoretical basis and in applications by
Yu. S. Saltykov, and N. M. Savchenko. Other methods of separating
elements are discussed by C. H. Benson, who is said to be the first
to use them to develop methods of processing ore,
A. V. Shishkov, and G. P. Alimov. Quantitative X-ray spectral
methods are described by E. Ye. Neimanov, and chemical methods
are evaluated by I. P. Alimov and P. F. Kostyukov. The development of
separation in pure products and atomic materials are discussed by I. Ye. Ye.
These materials are available by A. N. Rusanov and his associates. All articles are illus-
trated by graphs, diagrams, tables, and bibliographic references.

Yudovin, N. I. Criteria for the Variation in the Specific Gravity of
Rare Earth Elements

Zhuravlev, I. S., and P. N. Polik. Separation of Cerium from Rare
Earth Elements (REE) and its Preparation in Pure Form

Kostyukov, P. F. and G. P. Alimov. Use of Heavy Liquid in
Separating the Sm-Sr-Group and in the Production of High Concentration
Concentrates of Cerium Elements of the Terrene Sub-Group

Kostyukov, P. F. and G. P. Alimov. Use of Terrene Particles Sub-
group in Separating REE by the Method of Fractional Precipitation
Metallurgy. A. M., A. A. Srodon, and A. S. Kostyukov. Chemical
separation and the separation of REE (PROBLEMS OF THE USE OF
concentrates of RE and Nd of the Heavy Rare Earth Elements)

Andreyev, Z. F. Separation of the Elements of the Terrene Sub-Group
by Selectivity

Andreyev, Z. F., and P. N. Ruskis. Preparation of Pure Thorium
Separation of REE

Aleksandrov, G. P. Nickel-Manganese Concentration and Separation in
Separating the Total Mass of REE. In: "Rare Earths," No. 10.
Savchenko, N. M., P. D. Joncovich. Separation of Terrene Minerals

Separation of REE

Andreyev, Z. F., T. V. Klyshchenko, N. V. Kondratenko, and O. I.
Batalin-Krasilnikov. Terrene B in an Ion-Exchange Separation of the Terrene
Rare Elements

Andreyev, Z. F., and A. S. Kostyukov. Characteristics of Terrene A
and Terrene B in the Ion-Exchange Separation of Elements of the Cerium
Sub-Group

Card 4/9

MASLENNIKOV, A.S.

Determination of cyclohexanone and of cyclohexanoneoxime when
present together. Gig.i san. 24 no.12:71-73 D '59.
(MIRA 13:4)
1. Iz laboratorii otdeleniya profilakticheskoy dezinfektsii
Gor'kovskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(SOLVENTS chem.)

5(3)

SOV/80-32-4-44/47

AUTHOR: Maslennikov, A.S.

TITLE: Separate Determination of Cyclohexanone and Cyclohexanol in Aqueous Solutions (Razdel'noye opredeleniye tsiklogeksanova i tsiklogeksanola v vodnykh rastvorakh)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 4, pp 933-935 (USSR)

ABSTRACT: Existing methods for the analysis of cyclohexanone and cyclohexanol are rather complicated and can be used only for high concentrations. As the author established in a previous investigation [Ref. 6], cyclohexanone can form an azo dye in a reaction with a diazonium salt of the H-acid. Further studies have shown that this reaction is applicable for the separate determination of cyclohexanone and cyclohexanol in aqueous solutions. The determination can be performed both by the usual colorimetric method and by the colorimetric titration with standard aqueous solutions of an azo dye, obtained in the combination of the cyclohexanone with the diazonium salt of the H-acid. The error in determination of microgram-quantities of cyclohexanone and cyclohexanol does not exceed 10%.

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SOV/80-32-4-44/47

Separate Determination of Cyclohexanone and Cyclohexanol in Aqueous Solutions

There are: 1 table and 7 references, 3 of which are Soviet and 4 English.

ASSOCIATION: Laboratoriya otdeleniya profilakticheskoy dezinfektsii pri Gor'kovskoy oblastnoy sanitarno-epidemicheskoy stantsii (Laboratory of Prophylactic Disinfection Department at the Gor'kiy Oblast' Sanitary-Epidemical Station)

SUBMITTED: March 1, 1958

Card 2/2

BELIKOV, Yevgeniy Fedorovich, dotsent; VOROMIN, Viktor Aleksandrovich, inzh.;
CHOTOV, Georgiy Fedorovich, dotsent; ZELENKOV, Jurij Vladimirovich,
inzh.; IVANOV, Leonid Fedorovich, inzh.; KOREN'EV, Gleb Sergeyevich,
inzh. [deceased]; MASLENNIKOV, Anatoliy Stepanovich, inzh.; SIROTKIN,
Mikhail Pavlovich, dotsent; ULITIN, Andrey Il'ich, inzh.; URUSOV,
Nikita Fur'yevich, inzh.; FLOROVSKIY, Yuriy Sergeyevich, inzh.;
SHAKHIDZHANYAN, Grand Aleksandrovich, inzh.; EGLIT, Vitaliy Ivanovich,
inzh.; VASIL'YEVA, V.I., red.izd-va; ROMANOVA, V.V., tekhn.red.

[Guidebook on principles of engineering geodesy used in planning
and building hydroelectric power stations] Spravochnoe rukovodstvo
po inzhenerno-geodesicheskim izyiskaniiam pri proektirovani i stroi-
tel'stve gidroelektrostantsii. Pod obshchim red. E.P.Belikova.
Moskva, Izd-vo geodes.lit-ry, 1960. 447 p. (MIRA 13:11)
(Hydroelectric power stations) (Geodesy)

MASLENNIKOV, A.S.

Separate determination of cyclohexanone and cyclohexanone
oxime in aqueous solutions and in air. Zhur.anal.khim.
15 no.3:376-377 My-Je '60. (MIRA 1347)

1. Gorky Regional Department of Preventive Disinfection of
the Sanitary-Epidemic Station.
(Cyclohexanone)

MASLENNIKOV, A.S.; PORYVAYEVA, G.N.

Furfurylidene method for determining furfurole. Gidroliz i
lesokhim.prom. 14 no.3:13-14 '61. (MIRA 14:4)

1. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Furaldehyde) (Cyclopentanone)

S/080/61/034/012/017/017
D227/D305

AUTHOR:

Maslennikov, A.S.

TITLE:

Determining cyclopentanone and cyanimine in
adiponitrile

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 12, 1961,
2800 - 2802

TEXT: By studying chemical properties of cyclopentanone and cyanimine, the author was able to discover that these compounds give highly colored azo dyes, which provides a suitable method for their detection. Cyclopentanone, similarly to cyclohexanone, has been found to react with a diazonium salt of N-acid (naphthylamine-8-hydroxy-3, 6-disulphonic acid) giving intensely colored dye even at concentrations of 2 µg of cyclopentanone per 1 ml of solution. Cyanimine on the other hand gives pinkish-red dye with p-nitrophenylenediazonium in alkaline medium and cyclopentanone and cyancyclopentane do not interfere. The determinations may be carried out by colorimetry or colorimetric titrations. In the case of cyclopenta-

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D227/D305

Determining cyclopentanone and ...

none the method is as follows: To 10 ml of the solution of adiponitrile in 50 % methanol there are added 0.5 ml of diazonium salt of N-acid (prepared in the usual manner), 0.2 ml of monoethanolamine and 0.1 ml of 50 % aqueous KOH. After 3 minutes, the color developed is compared with prepared standard solutions. For colorimetric titrations two samples are taken, one containing adiponitrile in methanol and another containing equal amount of methanol solution. The reagents are then added to both samples. The blank sample is mixed with a standard solution containing known quantity of cyclopentanone until its color matches that of the test sample. Cyanine determinations are carried out in a similar way by using p-nitrophenylenediazonium and aqueous KOH. Since the coloration of the resulting solution is practically identical with that of neutral aqueous alcohol solution of basic p-fuchsin, either standard cyanimine or p-fuchsin solutions (the latter containing ammonium 4-nitroaniline-2-sulphonate) may be used for preparing the comparison scales. Colorimetric titrations may also be conducted using p-fuchsin and the procedure is similar to that used for cyclopentanone determinations. There are 1 table and 3 Soviet-bloc references.

Card 2/3

Determining cyclopentanone and ...

S/080/61/034/012/017/017
D227/D305

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy lesotekhnicheskiy institut (Central Scientific-Research Institute of Forestry Research)

SUBMITTED: November 16, 1960 (initially)
August 20, 1961 (after revision)

✓
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Card 3/3

MASLENNIKOV, A.S.; PORYVAYEVA, G.N.

Determination of furfurole and cyclopentanone by furfurylidene reaction. Trudy Kom.anal.khim. 13:98-106 '63. (MIRA 16:5)

1. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.

(Furaldehyde)

(Cyclopentanone)

MASLENNIKOV, A.S.

Analytical application of combination reactions between diazonium salts and ketones. Trudy Kom.anal.khim. 13:420-428 '63.
(MIRA 16:5)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektnyy institut
lesokhimicheskoy promyshlennosti.
(Diazonium compounds) (Ketones)

MASLENNIKOV, A.S.; PORYVAYEVA, G.N.

Determining of furfurole in nonaqueous media. Sbor. trud. TSNILXHI
no.15:93-99 '63. (MIRA 17:11)

MASLENNIKOV, A.S.; PORYVAYEVA, G.N.

Determining methyl- and hydroxymethylfurfural in furfural. Cidroliz.
i lesokhim.prom. 16 no.8:12-14 '63. (MIRA 17:1)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.

MASLENNIKOV, A.S.; PORYVAYEVA, G.N.

Determination of methyl ethyl ketone in acetone. Zhur. anal. khim. 18 no.11:1401-1403 N '63. (MIRA 17:1)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektnyy institut lesokhimicheskoy promyshlennosti, Gor'kiy.

MASLENNIKOV, A.S.; PORYVAYEVA, G.N.

Methods for analyzing edible acetic acid according to the State
Standard 6968-54. Gidroliz. i lesokhim. prom. 17 no.5:14-15 '64.
(MIRA 17:10)

1. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.

MASLENNIKOV, A.S.; PORYVAYEVA, G.N.

Determination of small amounts of acetone and acetic acid.
Zhur. anal. khim. 19 no.11:1412-1413 '64.

(MIRA 18:2)

1. Central Scientific-Research and Design Institute of
Timber-Chemical Industry, Gorky.

MASLENNIKOV, A.S.; PROYVAYEVA, G.N.

Determination of ethanol in methanol. Zav. lab. 30 no. 9:1072-
1073 '64. (MIRA 18:3)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektnyy institut
lesokhimicheskoy promyshlennosti.

MASLENNIKOV, A.S.; PORIVAYEVA, G.N.

Determination of furfural in the production of FA polymer.
Plast. massy no. 5856-57 '65. (MIRA 18:6)

MASLENNIKOV, A.S.; PORYVAYEVA, G.N.

Determination of pyrocatechin in wood chemical products. Gidroliz.
i lesokhim. prom. 18 no.3:15-16 '65. (MIRA 18:5)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektnyy institut
lesokhimicheskoy promyshlennosti.

MASLENNIKOV, A.S.; PORYVAYEVA, G.N.

Determination of acetone in the presence of aldehydes. Gidroliz. i
lesokhim. prom. 18 no.6:10-11 '65. (MIRA 18:9)

MASLENNIKOV, A.G. & PORYAVYVA, G.N.

Method for the determination of pyrocatechol. Zhur. orikl. khim. 38
no. 6:1327-1331 Je '65. (MJRA 18:10)

1. Tsentral'nyy nauchno-issledovatel'skiy i proektnyy institut
lesokhimicheskoy promyshlennosti.

MASLENNIKOV, B.A.; POLISHCHUK, A.N.

Hydrocyclone with an auxiliary magnetic field. Gor. zhur. no.3:
70 Mr '63. (MIRA 16:4)

MASLENNIKOV, D.F.

PHASE I BOOK EXPLOITATION

841

Moscow. Aviatsionnyy tekhnologicheskiy institut

Metallovedeniye i tekhnologiya termicheskoy obrabotki (Physical Metallurgy and Technology of Heat Treatment) Moscow, Oborongiz, 1958. 179 p.
(Series: Its: Trudy, vyp. 31) 3,200 copies printed.

Ed. (title page): Vishnyakov, D.Ya., Doctor of Technical Sciences, Professor;
Ed. (inside book): Kamyavakaya, T.M.; Tech. Ed.: Rozhin, V.P.;
Managing Ed.: Zaymovskaya, A.S., Engineer.

PURPOSE: This book is intended for production engineers, physical metallurgists, heat-treatment specialists, and other scientific and technical personnel, as well as for advanced students.

COVERAGE: The book is devoted to the study of properties of heat-resistant alloys, the effect of steel structure on wear resistance, phase transformations and recrystallization in alloys, and also the effect of the conditions under which alloys are heat-treated on the structure and properties of the alloys. For references and additional coverage, see Table of Contents.

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Physical Metallurgy and Technology of Heat Treatment

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TABLE OF CONTENTS:

Vishnyakov, D.Ya., Professor, Doctor of Technical Sciences; Maslennikov, B.F.,
Engineer. Study of the Recrystallization Process in EI435 Alloy 5

The material investigated was a nickel-chrome-titanium alloy used in
the manufacture of jet-engine exhaust pipes. Its chemical composition
(in percent) is given as follows: Cr = 20.40; Ti = 0.21; C = 0.05;
Mn = 0.44; Si = 0.40; Fe = 0.74; Cu = 0.05; Al = 0.04; S = 0.006;
P = 0.004; Ni - remainder. The authors' conclusions, in part, are:

1. It was established that the type of deformation (in tension or in
rolling) does not qualitatively change the recrystallization pattern
of the alloy. 2. At annealing temperatures of 1000-1050°C, two maxi-
mums of grain growth were observed: 0.2-5.0% in the case of small
deformations, and 25-60% in large deformations. 3. It was noted that
the critical degree of strain shifts in the direction of smaller strains
with an increase in annealing temperatures. Two temperature intervals were
observed where this rule operates: 900-1050°C and 1000-1200° C. 4. The
minimum temperature (threshold) of recrystallization for EI435 is 700°C.
There are 5 references, of which 4 are Soviet and 1 is German.

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Physical Metallurgy and Technology of Heat Treatment 841

Kirpichnikov, K.S., Candidate of Technical Sciences, Docent. Rapid Annealing of Semifinished Articles Cold-formed from D16 and AV (AK5) Aluminum-Alloy.

17

Sheet

The author describes the results of applying new regimes of rapid annealing for heat-treated aluminum alloys. In addition, he outlines the principles of designing equipment for rapid annealing.

Vishnyakov, D.Ya.; Figel'man, M.A., Engineer; Trifonova, O.L., Engineer.
Some Properties of EI659 Medium-Alloy Steel

34

The author studies the effect of the degree of plastic deformation and the rate of cooling on the properties of this steel, tested at various temperatures. This type of steel contains small to moderate amounts of chromium, nickel, tungsten, and vanadium. There are 4 references, all Soviet.

Vishnyakov, D.Ya.; Vinitskiy, A.G., Candidate of Technical Sciences. A Study of the Wear Resistance of Carbon Steels 43

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Physical Metallurgy and Technology of Heat Treatment

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Author's conclusions: 1. Carbon steels with a laminated pearlitic structure are more wear-resistant than steels with a granular pearlitic structure. 2. An increase in the amount of laminar pearlite results in a drop in the rate of wear, especially in hypoeutectoid steels. There are 4 references, all Soviet.

Vishnyskov, D.Ya.; Vinitskiy, A.G. Effect of Structure on the Wear Resistance of Iron-Chromium-Carbon Alloys

50

Author's conclusions (in part): 1. An increase in the quantity of special carbides in annealed and hardened chrome steels increases their wear resistance. 2. A given quantity of cubic crystals of chromium carbide imparts greater wear resistance than the same quantity of trigonal carbides, other conditions being equal. 3. The relationship between wear resistance, hardness, and certain other mechanical properties of annealed chrome steels can be observed only within the limits of identical structures. There are 3 references, all Soviet.

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Physical Metallurgy and Technology of Heat Treatment 841

Livanov, V.A., Candidate of Technical Sciences; Vozdvizhenskiy, V.M.,
Candidate of Technical Sciences. Recrystallization of Aluminum-Manganese
Alloys

65

The authors study the recrystallization process of aluminum-manganese
alloys as affected by the amount of manganese in solid solution, the
quantity and distribution of dispersed phases, and nonuniformity of
chemical composition and structure. There are 18 references, of which
8 are Soviet, 8 English, and 2 German.

Livanov, V.A.; Vozdvizhenskiy, V.M. Effect of Addition Elements on the
Solubility of Manganese in Aluminum

84

The authors study the effect of small amounts of iron, silicon, and
titanium on the solubility of manganese in aluminum. There are 15
references, of which 3 are Soviet, 8 English, and 4 German.

Vishnyakov, D.Ya.; Sovalova, A.A., Candidate of Technical Sciences, Docent;
Smirnova, K.A. Mechanical Properties of Steels at Low Temperatures

100

Card 5/8

Physical Metallurgy and Technology of Heat Treatment 841

Results are given of an investigation of the effect of the composition and heat treatment of certain alloy structural steels on the cold brittleness of the steels at sub-zero temperatures. There are 3 references, all Soviet.

Sovalova, A.A.; Kornilova, Z.I., Engineer. Scale Resistance of Certain Nickel-Base Alloys 107

The authors compare the scale resistance of three nickel-base alloys at various temperatures with that of an iron-base aircraft-construction alloy.

Neustruyev, A.A., Candidate of Technical Sciences. Heat Exchange in Continuous Convection Furnaces 113

Neustruyev compares uniflow and counterflow furnaces of the above type and concludes that preference should be given to the counter-flow variety. There are 6 references, all Soviet.

Neustruyev, A.A., Candidate of Technical Sciences. Special Features of Heating Elongated Items of Aluminum Alloys in Convection Furnaces 129

Card 6/8

Physical Metallurgy and Technology of Heat Treatment

841

The author discusses the special problems connected with the heat treatment, especially hardening, of elongated aluminum-alloy semi-finished products (shapes, pipes, sheet, etc.), particularly such problems as maintaining constant temperature and the achievement of rapid and uniform heating. There are 5 references, of which 4 are Soviet and 1 is German.

Livanov, V.A.; Yelagin, V.I., Candidate of Technical Sciences. Investigation of AMg6 Heat-resistant Alloy with Additions of Iron and Nickel 138

The author's investigation shows that small additions of iron (0.08-0.92%) and nickel (0.17-0.72%) do not improve the mechanical properties of AMg6 alloy (Al + 6% Mg) at elevated temperatures. There are 7 references, of which 5 are Soviet, 1 is English, and 1 German.

Livanov, V.A.; Yelagin, V.I. The Extrusion Effect at Elevated Temperatures 143

An investigation of the "extrusion effect" (increased strength as a result of the extrusion process) in aluminum-magnesium alloys with additions of chromium and manganese (together and separately) shows

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Physical Metallurgy and Technology of Heat Treatment

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that these alloys retain their increased strength even after cold drawing. It is further shown that the extrusion effect is preserved at elevated temperatures (300° C) and is observed both in the short-time strength test and in the long-time hardness test. There are 10 references, of which 8 are Soviet and 2 German.

Petrov, D.A., Professor, Doctor of Technical Sciences; Bukhanova, A.A., Candidate of Technical Sciences. Change in Shape and Recrystallization of Crystalline Substances During Solution and Growth in the Solid Phase

161

The authors investigate the changes in crystalline structure which occur during the annealing of various alloys.

Kolachev, B.A., Candidate of Technical Sciences. The Effect of Chromium, Manganese, and Iron on the Natural Aging of Aluminum-Copper Alloys

172

Results are given of an investigation of the effect of chromium, manganese, and iron on the aging of aluminum alloys containing 4 percent of copper. There are 9 references, of which 4 are Soviet, 3 German, and 2 English.

AVAILABLE: Library of Congress

Card 8/8

GO/mas
11-28-58

S/080/62/035/001/010/013
D204/D304

AUTHORS: Rachev, V. V., Maslennikov, B. K. and Lbov, A. A.

TITLE: The behavior of metallic Li surfaces in air and in argon, at low humidities

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 1, 1962, 189

TEXT: The investigation was undertaken to complement the existing data for interaction of lithium surfaces with water vapor in high concentrations, by determining the behavior of Li in argon and in air at low humidity. Specimens of freshly cut Li were exposed to atmospheres of up to 10% relative humidity, at 20°C, and the times required for the complete blackening of the surfaces were measured. No practical difference was found between the rates of attack in air and in argon containing ~1% O₂. The reaction periods increased very sharply from ~1 hour at 9% to ~24 hours at 4% relative humidity. At ~0.7% relative humidity, in air at 20°C, the specimens did not darken after 72 hours. The results are explained by the formation of a transparent protective layer. This was confirmed by Card 1/2

The behavior of metallic ...

S/080/62/035/001/010013
D204/D304

the greater resistance to attack of samples held previously for several hours at ~1% relative humidity at 20°C, as opposed to freshly cut surfaces. There are 1 figure and 2 non-Soviet-bloc references. The references to the English-language publications read as follows: B. E. Deal and H. J. Svec, J. Am. Chem. Soc., 75, 6173, (1953); J. Besson and W. Muller, C. R., 247, 1869, (1958). ✓

SUBMITTED: January 25, 1961

Card 2/2

MASLENNIKOV, B. M.

"Deformation of Single Crystals of Metals as Facilitated by Adsorption of Surface Active Substances," Dok. AN, 32, No. 2, 1941. Mbr., Lab. Physical Chemistry: K. Liebkecht Pedagogical Inst. Moscow - 1941-. Saratov, State Univ. c-1941-.

MASLENNIKOV, S.M.
CA

CrySTALLIZATION OF METAL MELTS. V. I. Likhman and M. M. Zhdanov. Doklady Akad. Nauk S.S.R. 67, 62-64 (1950).--Simple experiments described to show the importance of agglomeration recrystallization. In the final structure resulting from crystals of melted metals, agglomeration recrystallization occurs only at temps. just below the m.p., and only important only when the cooling rate is not too fast. To show that agglomeration recrystallization is decisive in producing single crystals regardless of the shape of the container or the process of heat removal, single crystals of Pb were made by cooling a 2 cm. diam. test tube of molten Pb in 4 hrs. and allowed to air-cool from 20 to 20° above the m.p. of Pb. Single crystals of Zn, Cd, and Se were made similarly. Polycryst. wires of Sn, Pb, Zn, and Al 1 mm. in diam. were converted to a single crystal by means of a small furnace that moved over the full length and raised small sections of it to the m.p. The single-crystallized portion extended past the zone of fusion; this fact showed that agglomeration recrystallization occurred in this area. A. G. Gay

Div. Phys. Chem. Disperse Systems, Inst. Phys. Chem., Dept. Chem. Sci.,
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MASLENNIKOV, B. M.

Cand. Physicomath Sci.

Dissertation: "Formation of Metal Monocrystals and their Deformation Features."

2/11/50
Inst. of Physical Chemistry, Acad. Sci. USSR

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MASLENNIKOV, B.M.

4

✓ A new method of growing metallic monocrystals from a melt. B.M. Maslenikov and V.I. Likhman. Akad. Nauk S.S.R. Akademiya Nauk Khim. No. 1, Nizye Melody Pis. Khim. Itslcovan. Poverkhnost. Yaroslavl' 145-8(1950).— A device is presented (drawings and photographs) for the prep. of filiform monocrystals of Sn, Pb, Zn, Bi, and Al, which assures that heat is removed evenly throughout the melt as it crystallizes at any given moment and that the cooling proceeds slowly enough. Werner Jacobson

MASLENNIKOV, B. N., LIKHTMAN, V. I.

Crystallization

A new method for growing metal microcrystals from fusions. Trudy Inst.fix.khimii
AN SSSR, Nol 1. 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS. Library of Congress, December 1952. UNCLASSIFIED.

USSR/Chemistry - Gas analysis, Hydrogen sulfide

FD-1551

Card 1/1 : Pub. 50-8/25
Authors : Maslennikov, B. M., Kavitskaya, F. A.
Title : Automatic gas analyzer for the detection of hydrogen sulfide in the air
Periodical : Khim. prom., No 8, pp 485-87 (37-39), Dec 1954
Abstract : Describe a continuous gas analyser which gives a signal whenever the concentration of hydrogen sulfide in the air reaches a dangerous level. The concentration of hydrogen sulfide in the air is measured automatically by letting light which has passed through a paper ribbon treated with lead acetate impinge on a photocell. When the amount of blackening due to the formation of lead sulfide has reached a certain limit, a signal is given. One figure.
Institution : State Institute of Mined Chemical Raw Materials
Submitted :

MASLENNIKOV, D.M.

1675. AUTOMATIC GAS ANALYSER FOR HYDROGEN SULPHIDE. Maslenikov, D.M. and Kavickaja, P.A. (Chim. Tech., Dari., 1955, vol. 7, (11), 682, 683). A detailed description is given of an automatic photoelectric analyser for detecting small amounts of hydrogen sulphide in air or other gases. It is particularly designed to give warning when the hydrogen sulphide content of the gas is above an unwanted limit. The stream of gas to be analysed is directed onto a travelling strip of detector paper (which is impregnated with lead acetate) at a point near that at which a beam from a standard illuminating lamp traverses the paper to fall onto a photo-electric cell. The detector paper becomes opaque to a degree corresponding to the hydrogen sulphide content of the gas stream, and thereby varies the current set up by the cell. These variations are relayed and valve-amplified, and are made to operate a warning bell when the quantity rises to an extent corresponding to an unwanted high concentration. A.A. 2

MASLENNIKOV, B. M.

On the Linear Velocity of Crystallization of Metals. B. M. M.

Maslenikov (Zhur. Tekhn. Fiziki, 1958, 23, (5), 933-938).

THEORETICAL. The linear velocity (v) at which a metal crystal (of cross-sectional radius r) grows is shown to be given by:

$$v = \frac{2\pi k_0 H}{Q_s Q_t} \left(\zeta_0 + \frac{Q_t}{Q_s} \right) \quad \text{where } \kappa = \text{thermal conductivity, } \zeta_0 =$$

m.p., H = heat-transfer coeff. at the surface, Q_s = heat capacity, and Q_t = heat of crystn. Determining H by static measurement of temp., M. shows that this formula gives excellent agreement with experiment for Pb, Sn, and Zn. The results are compared with old experiments on similar lines by Czochralski (Z. Physik, 1922, 8, 184). The differences show that H (which depends critically on experimental conditions but not on the properties of the metals) is the controlling factor in the est.(u. of v.—A. F. B.)